

Remarks

Reconsideration of this Application is respectfully requested. Upon entry of the foregoing amendment, claims 1-24 are pending in the application, with 1, 8, 9, 16, 17 and 24 being the independent claims. Independent claim 9 has been amended. This amendment introduces no new matter, and its entry is respectfully requested. Based on the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

At the outset, the Applicant wishes to thank the Examiner for the in-person interview conducted on November 15, 2005. During the interview, the participants discussed claim 1 in view of the cited references. Participants additionally discussed whether the Examiner had properly established a motivation to combine the references. Applicant hereby submits an after final reply summarizing its positions, which the Examiner agreed to consider.

Rejections Under 35 U.S.C. § 103

The Examiner rejected independent claims 1, 8, 9, 16, 17 and 24, as well as dependent claims 2-6, 10-14 and 18-22 under 35 U.S.C. § 103(a) as being unpatentable over a printed tutorial describing "Interactive Physics 2000" software ("IP2000 software"), in view of U.S. Patent No. 5,604,848 to Harada et al. ("Harada"). Dependent claims 7, 15 and 23 were rejected under 35 U.S.C. § 103(a) in further view of an article by Chen *et al.*, entitled "Physics-Based Modeling and Real-Time Simulation," Computing in Science & Engineering, pp. 98-102 (May/June 2001) ("Chen"). For at least two reasons, Applicant respectfully asserts that the Examiner has not established a *prima facie* case of obviousness. First, the cited references do not teach or suggest all

the claim limitations. Second, the Examiner has not established a motivation to combine the cited references.

1. The Cited References do not Teach or Suggest All the Claim Limitations.

To make a *prima facie* case of obviousness, the cited references must teach or suggest all the claim limitations. (MPEP § 2142.) The cited references fail in this regard. Each of the independent claims recites, in some fashion, the ability to select one of the "*plurality of behavioral assemblies*" from a library "*during execution*" of a three dimensional simulation. Neither Harada nor the IP 2000 software teach or suggest this feature.

Harada discloses several distinct and separate databases from which the ultimate eye-point is generated and modeled--e.g., model information data base 5, viewpoint locus database 7 and field of view conversion matrix database 6. (See Harada FIG. 2.) During simulation, the motion calculation unit 3 interfaces with at least these three databases and performs the physics-based calculations needed to generate an eye-point, calculate the field of view conversion matrix and update the drawing. (See Harada, FIG. 2; col. 6, ll. 46-60; and col. 8, l. 1-col. 9, l. 12.) These calculations are done in response to a request from the drawing processing unit. (*Id.* col. 6, ll. 57-60.)

However, Harada does not teach or suggest the ability to dynamically (i.e., *during execution* of the simulation) select from amongst a plurality of physics-based models. According to the present disclosure, such a feature allows for real-time control of the simulation. For example, as described in FIG. 8, a user provides input to generate a goal request during execution of the 3D simulation. (Application, ¶ 0072.) The goal request generates corresponding tasks upon which the appropriate behavioral assembly is selected. (Application, ¶¶ 73-74.) The "selected behavioral assembly then provides a

physics-based eye-point model for navigation during execution of a corresponding task."
(Application, ¶ 75.) Harada does not teach or suggest such a feature.

This defect in Harada is not cured by the IP2000 software, which also does not teach or suggest the ability to select one of the "*plurality of behavioral assemblies*" from a library "*during execution*" of a three dimensional simulation. Indeed, the IP2000 software does not even generate eye-point models that could be used for navigating three dimensional environments. Rather, the IP2000 merely generates two dimensional models, which behave according to well established rules of Newtonian physics, and which are viewed on a screen by a user as a physics instruction tool.

Finally, the defects noted in both Harada and the IP 2000 software are also not cured by Chen. Chen also does not disclose the ability to select one of the "*plurality of behavioral assemblies*" from a library "*during execution*" of a three dimensional simulation.

In sum, none of the cited references teach the ability to select one of the "*plurality of behavioral assemblies*" from a library "*during execution*" of a three dimensional simulation. Harada provides no means for making such a dynamic selection; nor does the IP 2000 physics instruction software; nor does Chen. For at least these reasons, the cited references do not teach or suggest all the features recited in the independent claims.

2. There is no Motivation to Combine the References

A. Legal Requirements

To make a *prima facie* case of obviousness, the Examiner must also establish a suggestion or motivation to combine the reference teachings. (MPEP § 2142; 2143.01.)
"When the motivation to combine the teachings of the references is not immediately

apparent, it is the duty of the examiner to explain why the combination of the teachings is proper." (*Id.* § 2143.01 citing *Ex parte Skinner*, 2 USPQ2d 1788 (BPAI 1986))

"There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." (*Id.* citing *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998)) Nonetheless, "the level of skill in the art cannot be relied upon to provide the suggestion to combine references." (*Id.* citing *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308 (Fed. Cir. 1999)) Indeed, even with technologically simple concepts, there must be a specific finding as to the principle or specific understanding within the knowledge of a skilled artisan that would have motivated the skilled artisan to make the claimed invention. (*Id.* citing *In re Kotzab*, 217 F.3d 1365, 1371 (Fed. Cir. 2000)) For this reason, it is important that the motivation to combine references be established with objective evidence and specific factual findings with respect to the references. (*Id.* citing *In re Lee*, 277 F.3d 1338, 1342-44 (Fed. Cir. 2002))

B. The Examiner's Reasoning is Legally Deficient

In the first non-final Office Action dated March 1, 2005 ("Non-final rejection"), the Examiner stated that "[m]otivation to [combine the references] would have been to provide a viewpoint to the user to conform with the conditions of an atmosphere." (Non-final rejection, p. 3.) This was the sole statement regarding motivation to combine. In the reply dated May 31, 2005 ("Reply"), Applicant urged the Examiner to provide additional support, asserting that this single conclusory sentence was legally insufficient. (Reply, pp. 13-14.) In the final Office Action, dated August 26, 2005 ("Final rejection"), the Examiner did not respond to this argument, and merely repeated the same single conclusory statement. (Final rejection, p. 3.)

Applicant respectfully asserts that the Examiner's single conclusory statement is insufficient to establish a *prima facie* motivation to combine, and is the result of impermissible hindsight. The Examiner has made no specific factual findings with respect to the references in this regard; nor has the Examiner made specific factual findings with respect to the understanding a skilled artisan would have had at the time the application was filed. As noted above, such findings are required by the MPEP to support a *prima facie* case of obviousness.

C. *There Is No Motivation to Combine the References*

Applicant cannot find any express or implied suggestions in Harada or the IP 2000 software to combine these references. Neither has the Examiner pointed to any express or implied motivation to combine the references. Furthermore, the combination of the cited references is improper where the combination would fundamentally alter the principle of operation of one of the references. (*See* MPEP § 2143.01 "The Proposed Modification Cannot Render the Prior Art Unsatisfactory for its Intended Purpose.") Applicant does not understand how the teaching of IP2000 software could be combined with Harada. For instance, even if the 2D teaching models of the IP 2000 software could be somehow transformed into 3D eye-point models, it is unclear what means taught in Harada could allow the dynamic selection from amongst from amongst a plurality of physics-based eye-point models during execution of the 3D simulation. For at least these reasons, Applicant asserts that there is no motivation to combine the cited references.

3. Summary

For at least the foregoing reasons, the Examiner has failed to establish a *prima facie* case of obviousness. Generally, there is no explicit or implied motivation to combine the IP2000 software and the Harada references. The Examiner's conclusory

statement to the contrary is insufficient as a matter of law. Furthermore, the cited references do not teach or disclose each limitation in the independent claims 1, 8, 9, 16, 17 and 24.

Applicant therefore respectfully requests that the rejection of the each of the independent claims be reconsidered and withdrawn. Similarly, because dependent claims 2-7, 10-15 and 18-23 depend from allowable base claims, Applicant also requests that the rejection of these dependent claims be reconsidered and withdrawn. Finally, Applicant requests that the rejection of dependent claims 7, 15 and 23 be reconsidered and withdrawn for the substantially the same reasons.

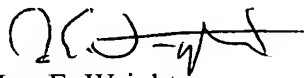
Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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